

# VOLTAGE TO CURRENT CONVERTER WITH VARIATION-FREE MOS RESISTOR

## ABSTRACT OF THE DISCLOSURE

5 A voltage controlled current source circuit of the present invention includes first reference current coupled to a voltage control node. A current input of a voltage controlled impedance is reproduced at the voltage control node through a current mirror as a second reference current. The voltage resulting from the action of the first and second reference currents is coupled to a voltage control input of the voltage controlled impedance.

10 In one embodiment, a control voltage is provided to the gate of a transistor. The source of the transistor is coupled to the current input of a second voltage controlled impedance circuit to produce an output current at the drain of the transistor. The second voltage controlled impedance circuit has a voltage control input coupled to the voltage control input of the first voltage controlled impedance and to the voltage control node.

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